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צבא, to fight,	ꝺeabaḋ, a dispute.
ציון, Zion, a fortress,	ꝺıon, a fortress, hill.
צפר, to haste,	ꝺeıꝼıꞃ, haste.

and in the case of ח:—

חבל, darkness,	ꞇeıṁeal, darkness.
חרג, killing,	ꞇoꞃᵹ, killing.
חוך, to go,	ꞇoıc-ım, to go.

The last dialectic peculiarity which the writer notices is the fact, that certain Hebrew letters seem to have dropped a liquid (particularly *l* or *r*) after an initial consonant, which liquid is retained in Celtic, e. g. :—

כמר, a priest,	cꞃuımṫeaꞃ, a priest.
כפא, to contract,	cꞃapaḋ, to contract.
עון, time,	cꞃon, time.
חונן, to practise sorcery (Poel),	cꞃon-aım, to bewitch.
חנמל, some insect destructive to trees (Gesenius),	cꞃınṁıol, a wood-louse.

In conclusion, Mr. Crawford expresses his conviction of the utility of the study of the Celtic dialect to a right understanding of Hebrew, and consequently to the true interpretation of Scripture.

The President communicated the following notice of a correction of the ordinary theorem by which the magnifying power of a telescope is determined.

Sir William Herschel long since noticed, that in his four-feet reflector he once saw the ring of Saturn without an eye-glass, but this remark does not seem to have been attended to by subsequent authors of optical treatises. It was, however, recalled to Dr. Robinson's thoughts by his observing that double stars appear in the 15-inch reflector of the Armagh Observatory considerably more separated than is due to the estimated magnifying power, and still more orcibly by his finding that Lord Rosse's six feet showed without an eye-glass the components of Castor more than a diameter and a half of the larger apart. A still more decisive case is his seeing ζ^2 Caneri wide double, and the third star as an elongation of its neighbour, though so close. The cause is obvious, but as its effects in large telescopes cannot be neglected, he asks permission to state the necessary correction.

In the telescope an image formed by the objective part is viewed at a small distance by the ocular part. It is commonly assumed that this distance is the focus of a lens equivalent to the ocular part, and hence the magnifying power, $= \frac{F}{f}$, the ratio of the focal lengths of the objective and ocular. This ratio is easily shown to be that of the diameters of the objective, and its image formed by the ocular; and, therefore, the common method of determining the power is to measure the diameter of this image by a dynameter, and divide by it that of the objective.

But in examining a minute object, we do not place it in the principal focus of the lens, or see it by parallel rays. With the unaided eye it is always placed at a certain distance V, which, I believe, in most eyes is about six inches; the ocular must, therefore, be placed so that the rays shall enter the eye with the divergence $\frac{1}{V}$, and hence, if ϕ = its distance from the image $\frac{1}{\phi} = \frac{1}{f} + \frac{1}{V}$, and the magnifying power,

$$M = \frac{F}{\phi} = \frac{F}{f} + \frac{F}{V}.$$

The theoretical magnifying power must therefore be increased by the ratio of the focal length of the objective to the least distance of distinct vision, and if there be no ocular or $f = \infty$, the latter term still expresses it. With this adjustment of the lenses, the dynameter gives an expression of the power still wider from the truth.

$$M' = \frac{F}{\phi} - \frac{F}{V} - \frac{f}{f + V},$$

and it must therefore be increased by these two terms, of which, however, the last is unimportant. The power with the eye alone is, therefore, to be added to that given by the eye-piece. In Lord Rosse's telescope $F = 54$ feet, and, therefore, this addition is 108, quite sufficient to separate pretty close double stars. In the Armagh reflector, which is of Cassegrain's construction, it is even greater, being 138 with the highest convex mirror of 12 inches focus.

The Academy then adjourned to Wednesday, the 25th February, 1852, at 4 o'Clock, P. M.